

1 58. A plant cell susceptible to transformation by *Agrobacterium*, said cell
2 transformed to express a shortened *Bacillus thuringiensis* gene at levels rendering said
3 cell toxic to a lepidopteran pest.

1 59. The plant cell of claim 58 wherein said cell is a dicotyledonous cell.

1 60. The plant cell of claim 59 wherein said cell is a tobacco cell.

1 61. A plant cell susceptible to transformation by *Agrobacterium*, the genome
2 of which contains a chimeric gene comprising:

- 3 a) a first DNA fragment that encodes a N-terminal fragment of
4 approximately 60-80 kD, derived from DNA encoding a *Bacillus*
5 *thuringiensis* insecticidal crystal protein of approximately 130 kD which
6 has been shortened; and
7 b) a promoter region and 3' non-translated region containing a
8 polyadenylation signal; the first DNA fragment being under the control
9 of the promoter region; the promoter and 3' non-translated regions
10 allowing the first DNA fragment to be expressed in the cell; whereby
11 the chimeric gene can be expressed in the cell as an insect controlling
12 amount of an insecticidal *Bacillus thuringiensis* polypeptide toxin with
13 toxicity to Lepidoptera insects.

1 62. A plant cell susceptible to transformation by *Agrobacterium*, the genome
2 of which contains a chimeric gene comprising:

- 3 a) a first DNA fragment that encodes a N-terminal fragment of
4 approximately 607 amino acids, derived from DNA encoding a *Bacillus*
5 *thuringiensis* insecticidal crystal protein of approximately 130 kD which
6 has been shortened; and
7 b) a promoter region and a 3' non-translated region containing a
8 polyadenylation signal; the first DNA fragment being under the control
9 of the promoter region; the promoter and 3' non-translated regions